PowerEdge Product Group

Direct from Development

Server-Centric IT

Tech Note by:

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SUMMARY

Using a server-centric IT paradigm can dramatically simplify IT infrastructure and management.

The implementation of a software defined data center allows the capability of running an entire data center on one type of equipment that historically was many different types.

Now users can choose to run Dell EMC PowerEdge servers as:

- Servers
- Storage
- Networking
- Converged or Hyperconverged Infrastructure

A software defined data center based on a server-centric model can reduce costs and dramatically simplify IT.

Historically any size data center dealt with silos of IT that were always hard to break down. Small companies typically had an IT generalist, or used a partner such as a reseller, to help set up disparate servers, networking and data storage. As the software interface and the hardware for each was typically unique, larger companies tended to specialize which led to experts who focused mostly on their area. This has led to today's data center having multiple types of IT equipment.

Some of this came from a historical incapability for IT infrastructure to work together as it was designed differently. Server equipment was the first to adapt an industry standard design but for many years, and in some cases through today, both storage and networking designed custom software that then used proprietary hardware. The good news for IT users is a few years ago that business model became for most companies and industry standard hardware designs became normal. This also led to the capability of new software designs of both software defined storage and networking which totally changed the paradigm for IT equipment. (The software defined server is really virtualization on top of industry standard servers and has been around for a long time).

The great news for users is the industry standard for hardware is consolidating onto one simple platform: the server. Software defined storage runs on: a server. Software defined networking runs on: a server. IT users can now utilize the same industry standard server they've used for years for much of their IT equipment.

As this becomes more common, imagine the possibilities: An administrator or purchasing agent can order a server and in the future repurpose it as a storage array or networking switch. This could dramatically simplify the data center by making management easier, streamline staff training, and consolidate purchasing power all while providing a common IT building block.

Dell EMC sees the software defined data center, based on server centric IT, as a great opportunity for its customers. As the largest server vendor in the world, IT users are likely to have Dell PowerEdge servers. Now they can utilize that Dell server knowledge to run other types of solutions outside of server workloads and highlight ease the amount of unique IT equipment learned.

Dell EMC continues to work to integrate server solution bases across its portfolio. For example, Dell EMC has integrated many types of its storage solutions onto its servers with a goal of providing simpler, more automated and secure infrastructure across its entire portfolio. Dell EMC's leading Converged Infrastructure (CI) and Hyper Converged Infrastructure (HCI) also can arrive built on top of PowerEdge servers. IT administrators can now choose to buy PowerEdge servers, use PowerEdge software defined storage ready nodes or CI/HCI solutions such as VxRAIL, VxRACK or ScaleIO. Users now get the same PowerEdge solution for however they choose to best scale their data center.

A simple, scalable data center based on the server. This is the way to reduce costs and dramatically simplify IT.